



## **METHOD AND APPARATUS FOR SYNCHRONIZING AN OFDM SIGNAL**

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### **Abstract of the Disclosure**

An apparatus (30) for and method of synchronizing OFDM signals utilizes a single baud to provide synchronization in time, frequency, and per-subcarrier rotation (201). Timing and fractional subcarrier  
10 frequency synchronization may be obtained from either a known or unknown (e.g., data symbol) baud having known symmetry properties. Because all three synchronization tasks may be accomplished utilizing a single sync baud, the present invention spectrally efficient. A  
15 differential correlation metric is utilized to efficiently provide integer subcarrier frequency synchronization and per-subcarrier rotation synchronization.